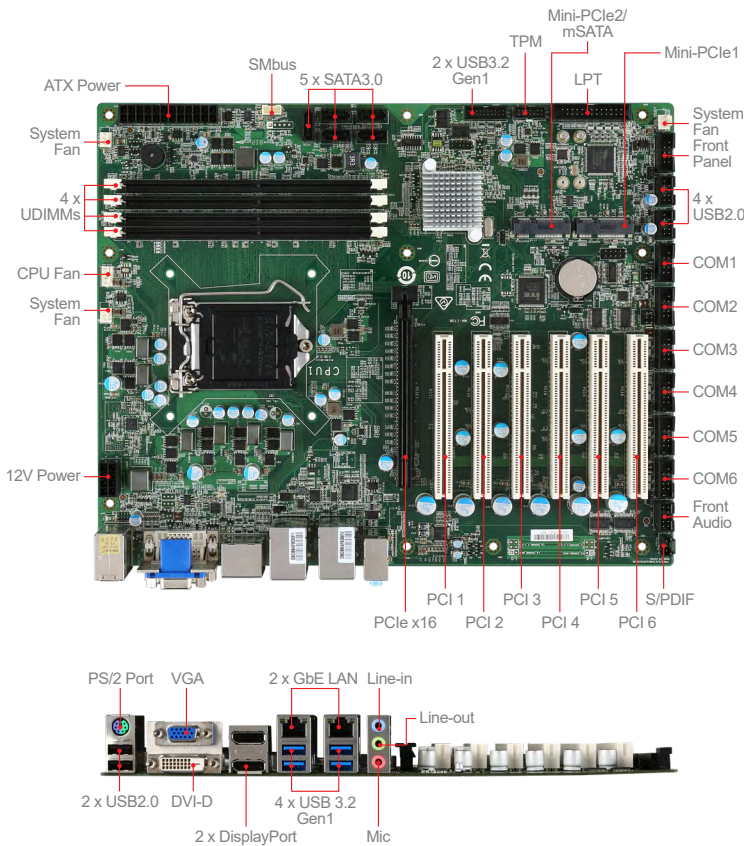


MS-98H9 V2.0

ATX with 7th/6th Gen Intel® Kaby Lake/Skylake Core™ i7/i5/i3, Pentium®, Celeron® Processor & Intel® Q170 for High-Performance Solution

Industrial Computer
COM Express Board
Pico-ITX Board
3.5" Board
EPIC Board
Mini-ITX Board
Micro-ATX Board
ATX Board
Peripheral



Features

- Intel® 7th/6th Gen Kaby Lake-S/Skylake-S Series with i7/i5/i3, Pentium®, Celeron®, and Intel® Q170
- 4 DDR4 2133 MHz UDIMM slots up to 64GB
- Triple independent displays: VGA, DVI-D, 2DP
- 2 GbE LAN with RJ-45
- 1 PCIe x16 (Gen 3), 6 PCI, 1 Mini-PCle (Full-size, with mSATA), 1 Mini-PCle (Full-size) slots
- mSATA, 5 SATA 3.0 for storage
- SATA RAID 0/1/5/10
- 6 USB 3.2 Gen 1, 6 USB 2.0, 6 COM (2 RS-485), GPIO, LPT, PS/2, Audio, S/PDIF, 3 System FAN
- SMBus, Chassis Intrusion
- ATX Power

Ordering Information

Part Number	Description
919-98H9-006	MS-98H9 VER:20 Intel Kaby Lake-S/Skylake-S, Intel Q170, 4*DDR4, 1*DVI-D+1*VGA+2*DP+ 6*USB3.2 Gen 1+6*USB 2.0+ 5*SATA 3.0+1*PCIe x16+6*PCI+2*Mini-PCle+1*mSATA+6*COM+2*LAN+ATX POWER

Packing List

Part Number	Description	Quantity
K1B-3008012-E06	USB Cable, 330mm	1
K14-1018004-V03	COM Port Cable, 510mm	1
K39-3002004-E06	PS/2 Y-Cable, 190mm	1
K18-1025011-V03	LPT Cable, 300mm	1
K1D-1008261-V03	SATA Cable, 500mm	2
E21-98H9010-C22	I/O SHIELDING	1

Specifications

Processor	CPU	7th/6th Gen Intel® Desktop Kaby Lake/ Skylake i7/i5/i3/Pentium®/ Celeron® Series Processor, Max 95W
	Frequency	2.6GHz~4.5GHz(Depends on CPU)
	L2 Cache	2MB~8MB (Depends on CPU)
	CPU Type	Socket (LGA 1151)
	Chipset	Intel® Q170 Express
Memory	BIOS	AMI UEFI
	Technology	Dual-channel DDR4 (non-ECC) 2133 MHz
	Max. Capacity	Up to 64GB
	Socket	4 x 288-pin UDIMMs
Display	Controller	Intel® HD Graphics
	Graphic Memory	Depends on CPU
	LVDS	N/A
	eDP	N/A
	VGA	1 (Non Hot Plug)
	DVI	1 (DVI-D)
	HDMI	N/A
	DisplayPort	2
Ethernet	Multiple Display	3 independent displays
	Display Interface	VGA up to 1920 x 1080 @60Hz DVI-D up to 1920 x 1200 @60Hz DP up to 4096 x 2304 @60Hz
Audio	Controller	1 x Intel® I219-LM GbE LAN PHY 1 x Intel® I210-AT GbE LAN
Super I/O	Controller	Realtek® ALC887 HD Audio Codec
H/W Monitor	Controller	Fintek F81866AD-I
	Watchdog Timer	256-level Watchdog Timer
TPM	Smart Fan	Yes
I/O Interface	Controller	Box header
	USB	6 x USB 2.0 (2 x rear, 4 x internal) 6 x USB 3.2 Gen 1 (4 x rear, 2 x internal)
	Serial	6 x COM ports (internal) COM1~2: RS-232/422/485, 0V/5V/12V COM3~6: RS-232, 0V/5V/12V
	Parallel	Yes
	PS/2	1 x PS/2 port by Y-cable for keyboard and mouse
Expansion Slot	GPIO	8-bits (4 x GPI; 4 x GPO), 5V
	PCIe x16	1
	PCIe x4	N/A
	PCIe x1	N/A
	PCI	6
	M.2	N/A
	Mini-PCle	2 x Full-size (one w/ mSATA)
Storage	SATA	5 x SATA 3.0 (RAID 0/1/5/10)
	IDE	N/A
	eSATA	N/A
	CFast	N/A
	mSATA	1
Power Supply	CompactFlash	N/A
	DC	N/A
Environment	ATX	ATX-Power 24P, 12V-8P
	Operating Temperature	-10 ~ 60°C Note: Thermal w/ Airflow:0.7m/s
	Operating Humidity	10 ~ 90%, non-condensing
	Storage Temperature	-20 ~ 80°C
Form Factor	Storage Humidity	10 ~ 90%, non-condensing
	Dimensions	305 x 244 mm (ATX)
	Weight	0.70 kg
Certification	EMC	FCC, CE, RCM, VCCI, BSMI (Class B)
Software Platform	OS Support	Windows 7 (32/64-bit) (Skylake-S Series CPU Only) Windows 8.1 (64-bit) (Skylake-S Series CPU Only) Windows 10 IoT Enterprise LTSC/SAC 1809 (64-bit, RS5) Linux (Support by request)